INTERIM REPORT OF THE

NATIONAL PETROLEUM COUNCIL'S

COMMITTEE ON SYNTHETIC LIQUID FUELS PRODUCTION COSTS

JULY 24, 1951

CHAIRMAN: W. S. S. RODGERS

HEADQUARTERS OFFICE

601 Commonwealth Building 1625 K Street, N. W. Washington 6, D. C.

Telephone: EXecutive 5167

COMMITTEE ON SYNTHETIC LIQUID FUELS PRODUCTION COSTS

CHAIRMAN - W. S. S. Rodgers
The Texas Company
135 East 42nd Street
New York 17, New York

SECRETARY - J. W. Foley
The Texas Company
135 East 42nd Street
New York 17, N. Y.

K. S. Adams
Phillips Petroleum Company
Bartlesville, Oklahoma

Hines H. Baker Humble Oil & Refining Company P. O. Box 2180 Houston 1, Texas

Max W. Ball Room 1001, Arlington Building 1025 Vermont Avenue, N. W. Washington 5, D. C.

Robert L. Foree Texas Independent Producers and Royalty Owners Association 604 First National Bank Building Dallas 1, Texas

John M. Lovejoy Seaboard Oil Company of Delaware 30 Rockefeller Plaza New York 20, New York R. S. Shannon Pioneer Oil Corporation 920 Midland Savings Building Denver, Colorado

Reese H. Taylor Union Oil Company of California 617 West Seventh Street Los Angeles 17, California

J. Ed Warren
Independent Petroleum Association of America
c/o Carl B. King Drilling Company
P. O. Box 270
Midland, Texas

L. S. Wescoat
The Pure Oil Company
35 East Wacker Drive
Chicago 1, Illinois

Robert E. Wilson Standard Oil Company (Indiana) 910 South Michigan Avenue Chicago 80, Illinois

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It was reported at the May 9, 1951 meeting of the National Petroleum Council that considerable progress had been attained in the interim despite the magnitude of the task. Satisfactory progress continues to be made on all phases of this study, as one meeting of the main committee and a considerable number of meetings of the various sub-committees have been held since May 9, 1951. A recent tabulation of the activities of our main Subcommittee and its working subcommittees shows 45 committee members, 99 additional technical personnel involved, 490 meetings attended by all personnel, and an estimated \$213,000 expended by the cooperating companies in this work.

In the previous report it was stated the cost of synthetic fuels as produced by three processes—coal hydrogenation, coal gasification and fuel synthesis and shale oil refining—would be established. In addition, for each of these basic processes, estimates would be made of the so-called first-plant cost and the industry—wide plant cost, that is the average cost for the necessary plants to provide 250,000 barrels per day production. Further, it is intended that a present day or established cost be developed and a future or optimistic cost which would allow for possible technological research improvements which might be forthcoming in the next five to ten years would also be calculated.

It became evident, after several months of activity, that the time and work involved in preparing each separate case, and obtaining the necessary data from the Bureau of Mines and reviewing

the results with the Bureau of Mines to clear up any major differences, necessitated reducing the number of cases to be included in the first report. The cases selected for presentation in the initial report, which will be available to the National Petroleum Council in October 1951, include only the first-plant and industry-wide cases for the present day or established coal hydrogenation and shale oil processes. The future or optimistic cases for these processes and all of the cases for the coal gasification and fuel synthesis process are presently deferred but will definitely be included in a later report.

The status of the specific phases of the work is briefly as follows:

The Raw Materials group has essentially completed its assignment of establishing the availability of shale and coal for specific plant sites, and the cost and quality of these raw materials. Bureau of Mines and National Petroleum Council sub-committee members are essentially in agreement on availability, cost and quality of oil shale and western coals. The area of disagreement between the Bureau of Mines and the National Petroleum Council on the cost and quality of eastern coals has been narrowed sufficiently that the sub-committee members feel there is no justification for further attempts to reconcile the remaining minor differences.

The Process Committee has critically reviewed the Bureau of Mines processes and industry processes made available to the Bureau of Mines for coal hydrogenation and oil shale operations and has now completed its assignment of calculating raw material requirements, equipment sizes, and other data needed for the cost estimates.

The Engineering Committee, whose function it is to develop investment costs for plants and all offsite facilities, will have completed by August 1 the first-plant cost for both the Coal Hydrogenation and Shale Oil installations. The so-called industry cases will be completed by August 15.

The Economics Committee has been functioning for the past two months assembling and integrating the data from the Raw Materials, Process and Engineering groups to develop the final operating investment costs for synthetic fuel plants. It has nearly completed the hydrogenation case based on Rock Springs, Wyoming coal. A test or "dry run" is now underway on the shale oil case. This group expects to have its work completed on both the first-plant and industry-wide cases by September 1.

The Sub-committee plans to convene for one week late in September to prepare a summary report. It is now expected that this report can be issued by October 15, 1951.

A final report covering the cases selected for presentation in the initial report can be issued by October 15, 1951.

July 17, 1951